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Amendment dated October 29, 2007
Reply to Office Action of June 29, 2007

REMARKS / ARGUMENTS

Claims 33-43 remain pending in this application. Claims 14-32 have

been canceled without prejudice or disclaimer. New claims 33-43 have been added.

35 U.S.C. § 103

Claims 14-17, 23-26 and 32 stand rejected under 35 U.S.C. §103(a) as being

unpatentable over Allen et al (U.S. Patent No. 5,546,557) in view of Blood et al (U.S.

Pub. No. 2003/0110351). Claims 20, 22 and 27-29 stand rejected under 35 U.S.C.

§103(a) as being obvious over Allen et al in view of Blood et al as applied to claim

14, and further in view of Ofek (U.S. Patent No. 6,101,497). Claims 18-19 and 30-31

stand rejected under 35 U.S.C. §103(a) as being obvious over Allen et al in view of

Blood et al as applied to claim 14, and further in view of Sekido (U.S. Patent No.

6,311,193). Claim 21 stands rejected 35 U.S.C. §103(a) as being obvious over Allen

et al in view of Blood et al as applied to claim 14, and further in view of Sekido as

applied to claim 19, and even further in view of Ofek. These rejections are traversed

as follows.

The present invention is directed to a storage system in which a control unit

provides a plurality of virtual storage units that are related to storage volumes to a

host computer. The storage volumes are configured by a plurality of disk devices.

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Based upon an instruction indicating a particular virtual storage unit, the control unit

determines whether the particular virtual storage unit is mapped to at least one

storage volume. If so, the control unit provides the mapped storage volume as a

virtual volume to the host computer. This way, if the computer can recognize at least

one storage volume, the computer may be booted though other storage volumes are

not recognized. In other words, unlike in the prior art, it is not necessary for the

computer to recognize storage volumes that are not mapped to a particular virtual

storage unit.

None of the cited references disclose or suggest the presently features of the

present invention. Allen et al disclose a peripheral data storage subsystem that

responds to a MOUNT command received from a host processor to create and

mount a host-processor-addressable logical data-storage volume, having a serial

number VOLSER indicated in the MOUNT command (see Abstract). Fig. 6 shows a

tape subsystem having a tape library (54, 55) and a drive (DVE 53) which mounts

storage media such as tape cartridges, tape reels, etc. (PVPs) (see column 14, lines

45-55). A peripheral storage controller (PCS 52) is a control unit, while a peripheral

volume manager (PVM 57) provides automatic data storage volume management

including automatic creation/establishment of data storage volumes addressable by

host processors 45 based on information contained in a system volume catalog 50

(see column 14, lines 45-47 and column 14, line 64 to column 15, line 2). A volume

map is provided and includes entries having a VOLSER field for identifying all of data

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storage volumes (LVs) (see column 15, lines 2-6). In response to a MOUNT

command including a VOLSER, a tape (PVP) is mounted to the physical drive (DVE

53). The tape is positioned to a logical volume related to the VOLSER (see column

18, line 59 to column 19, line 11 and Fig. 10). The tape may be replaced with an

optical or magnetic disk (see Fig. 18).

The disclosure of Allen et al has nothing to do with increasing the speed at

which a computer is booted by providing a particular storage volume to the computer

in response to an instruction. The deficiencies in Allen et al are not overcome by

resort to Blood et al. Blood et al disclose a system and method for supporting virtual

local data storage having a disk emulator that includes control logic that receives one

or more disk commands from a disk controller and retrieves data in a remote data

storage device and forwards the data to the disk controller such that the disk

controller perceives the remote data storage device as a local device (see [0008]).

On the other hand, according to the presently claimed invention, a non-removable

storage device is provided to the computer as a removable storage device. This

way, the computer may finish booting by accessing the storage volume that is

presented as a removable storage device without needing to access other storage

volumes.

It is also pointed out that at the bottom of page 3 of the Office Action, the

Examiner equates the LV's of Allen et al to the first and second storage volumes of

the pending claims. Furthermore, at the top of page 4 of the Office Action, the

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Examiner equates the LV's of Allen et al with the claimed virtualized removable storage drives. It is submitted that the LV's of Allen et al cannot be said to correspond to both the first and second storage volumes and the virtualized removable storage drives. The deficiencies in Allen et al and Blood et al are not overcome by resort to any of the remaining references. As such, it is submitted that the pending claims patentably define the present invention over the cited art.
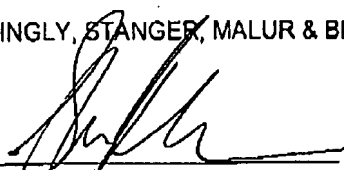
Request for Interview

Applicants request that the Examiner conduct an interview with the undersigned prior to issuing a subsequent Office Action. As such the Examiner is hereby invited to contact the undersigned by telephone to arrange an appropriate date and time for such interview.

Conclusion

In view of the foregoing, Applicant respectfully requests that a timely Notice of Allowance be issued in this case.

Respectfully submitted,

MATTINGLY, STANGER, MALUR & BRUNDIDGE, P.C.

By_____
Shrinath Malur
Reg. No. 34,663
(703) 684-1120

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